

**Abstract**

The invention relates to a method for microstructuring an  
5 optical waveguide having a first cross-sectional region  
with a first refractive index, a second cross-sectional  
region with a second refractive index, and a boundary  
region in the transition from the first to the second  
cross-sectional region, in which the optical waveguide is  
10 exposed to laser radiation in the form of at least one  
ultra-short single pulse or a sequence of pulses with a  
defined energy input, whereby the radiant exposure takes  
place in such a manner that a modification of at least one  
optical property of the optical waveguide takes place at at  
15 least one defined portion of the boundary region.